

LOAD BEARING ARTICLE

ABSTRACT OF THE DISCLOSURE

A load bearing article (1) is described and includes a plurality of elongated shells (20) having a plurality of internal reinforcing ribs (50) fixedly attached within the hollow interior (35) of each shell (20), the shells (20) reside substantially within a common plane and are fixedly attached together by means of an external molded plastic structure (53). Each elongated shell (20) has a plurality perforations (e.g., perforations 38, 41, 44 and 45) having edges. A portion of the plastic material of the internal reinforcing ribs (50) and the external molded structure (53) extends through at least some of the perforations in each shell (20), and the edges of the perforations are embedded in the plastic material extending therethrough, thereby fixedly attaching the internal reinforcing ribs (50) within and the external molded structure (53) to each shell (20). The load bearing surface (87) of the load bearing article (1) comprises (or is defined by at least) the external molded structure (53) (e.g., external molded structure (53) and at least one of, the elongated shells (20), and the plurality of internal reinforcing ribs (50)). The load bearing article is preferably formed by concurrently molding the plastic material of the plurality of internal reinforcing ribs (50) onto the interior surfaces (32), and the external molded structure (53) onto the exterior surfaces (29), of the elongated shells (20). Also described is a reversibly extendable load bearing structure (11) that includes at least two load bearing articles (1 and 1') connected together by means of a hinge (165).